



Bulletin of Popular Information

Volume 34

August, 1959

Number 8

WHAT TO PLANT ON DIFFICULT SLOPES

One of the most vexing problems with which planters must at times contend is that of establishing presentable coverings on slopes and banks unsuited to the use of grass.

As every plant cannot qualify as a good slope cover we may cite several prerequisites desirable in a subject considered for this use. First of all, a fibrous root system is essential, one which will help stabilize the soil and minimize erosion. Long runners which remain close to the ground line are particularly advantageous from this standpoint although not entirely necessary. And, if the branches root readily at the tips or at various places along the stems, so much the better. The ability to form a quick cover is often the most important factor. It goes without saying that any subject used should be able to compete with weeds, for low cost maintenance is the rule today. The appearance of the plant must be considered carefully, too, not only from the standpoint of size, form and texture, but also from the color angle. Foliage, flowers, fruit, twigs etc. all enter into the picture. Suitability to the setting is equally important, rough banks along roads, fences or streams obviously calling for plant material of a different sort than lawn terraces or other more formal situations.

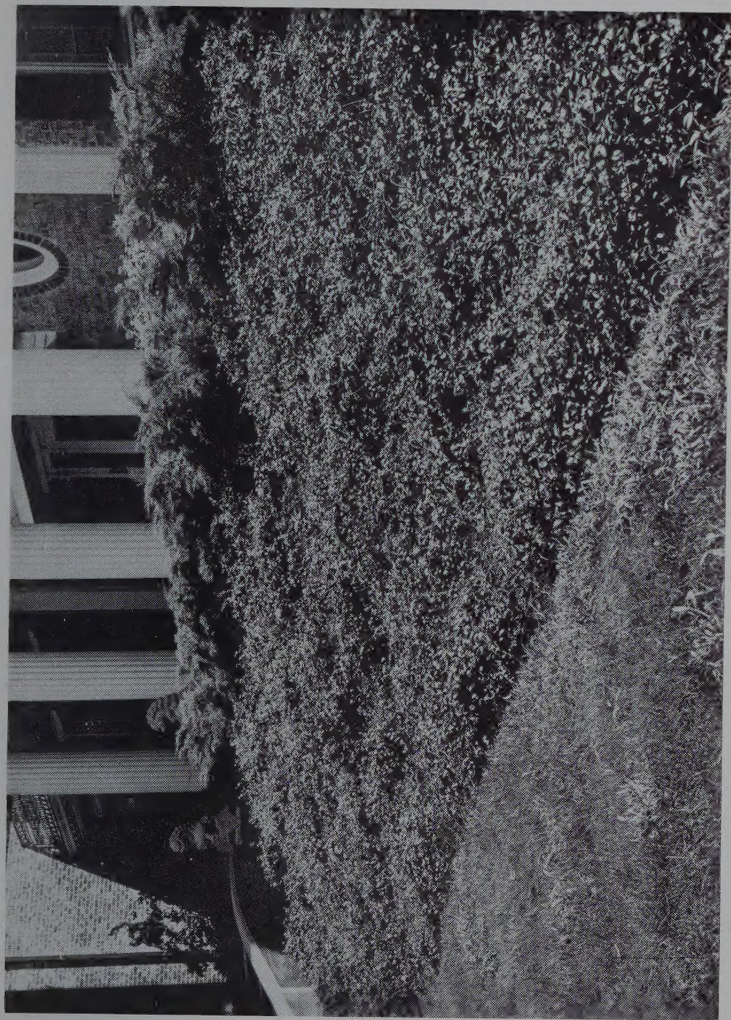
Slopes in Shade or Part Shade

The naturalistic sites seem to be the most difficult to treat, probably because many home gardeners are unfamiliar with suitable materials for the purpose. Of the woody plants, the native Bittersweet, *Celastrus scandens*, is one to consider. Although tending to form a jumbled mass if left unattended, by scything off the plants each spring to a height of 1½ or 2 ft. a dense, even covering will eventually be achieved. The foliage remains a good green throughout the season and there may even be a fruit display in autumn. Will thrive either in half shade or sun. The familiar Coralberry or Indian Currant, *Symphoricarpos orbiculatus*, an oval leaved suckering shrub of three feet or less is another possibility. Small white flowers in summer and clustered, purplish red fruit which often times remains showy well into the winter are its ornamental attractions. Doing well in either sun or shade, and being tolerant of poor soil, it has always been

a popular plant for erosion control. A more refined shrub serving the same purposes is the Hancock Prostrate Coralberry, *Symphoricarpos che-naulti* 'Hancock', a lower shrub (to 2 ft.) forming a neat mat of fine textured foliage. Its fruit is rose pink. The Arnold Dwarf Forsythia, *Forsythia* 'Arnold Dwarf', another neat appearing shrub of the same height also has excellent slope planting possibilities. Its purplish branches arch gracefully, rooting wherever the tips touch the ground, the bushes forming interesting mounds. The narrow deeply serrate margined leaves are quite good looking, and if the bush were not such a scanty bloomer, it would meet every requirement expected of a first class ornamental. There being a *Euonymus* for every purpose, it is only logical that the native Running *Euonymus*, *E. obovatus*, be considered for its bank or slope planting possibilities. With greenish, almost procumbent stems, it spreads in uniformly flat masses to form a foot high cover of dark green. Bright colored warty fruits and yellowish foliage provide fall interest. Halls Japanese Honeysuckle, *Lonicera japonica halliana*, a white flowered variety of the overly aggressive vine which has become such a pest in the southeast can be safely planted as a cover plant in the Chicago area by reason of the fact that our severe winters tend to keep its vigor checked. Clambering over the ground or climbing into any trees and shrubs which happen to be in its way, it quickly establishes a cover of dark, semi-evergreen foliage. Delightfully fragrant white flowers appear in early June. Our native Woodbine or Virginia Creeper, *Parthenocissus quinquefolia*, high climbing vine or ground hugging cover can be used in the same way. Five lobed leaves, blue fruit on red pedicels and precocious bright scarlet autumn color are its special ear marks. On particularly rough banks, exposed slopes or roadside cuts where the soil is poor the rambling Martrimony Vine, *Lycium balmifolium*, is well equipped to cope with the problem. Its coarse arching branches spread over the ground, rooting where they touch and meeting any competition with a dense mass of deep green foliage. There are small purplish lilac flowers in June, but the plant is showiest in autumn when its elongated orange-scarlet berries ripen.

In shaded areas of more refinement one of the evergreen covers will perhaps best serve the purpose. That old standby Purpleleaf Wintercreeper *Euonymus*, *Euonymus fortunei colorata*, is always good, making an interlacing deep green covering less than 8 inches in height. Its purplish winter color is the only feature which might in some instances detract from its attractiveness. *Pachysandra terminalis*, better known as Japanese Spurge, is another of the first rate covers, which in the right location will form a uniform bright green mass 6 or 8 inches high. Old fashioned Periwinkle or Myrtle, *Vinca minor*, performs equally well, with the additional advantage of being tolerant of either sun or shade. Its shiny foliage is darker green and it flowers profusely in early spring. While periwinkle blue is the typical color of the blooms, it also occurs in deeper blue, white and purple. The Ivies are another possibility, especially the hardier Baltic form, *Hedera helix baltica*, and the larger leaved Bulgarian Ivy, *Hedera helix* 'Bulgarian'. Both require more sheltered sites, however.

Where only a summer cover is wanted an entirely different group is available, the deciduous herbaceous materials. Bugle or Blue Bugle, *Ajuga reptans*, immediately comes to mind, forming as it does quick, close grow-



Old fashioned Myrtle or Periwinkle, *Vinca minor*, is an evergreen ground cover tolerant of both sun and shade.

ing rosettes of deep green. It blossoms, too, bearing 6 or 8 inch blue, purplish or white flower spikes in late May. In moist locations the Wild Gingers would have possibilities with their roundish overlapping foliage. The common one, *Asarum canadense*, has larger, brighter green leaves; the less aggressive European Ginger, *Asarum europaeum*, smaller, more leathery ones with a pronounced gloss. From the southern Alleghenies comes a little known deciduous *Pachysandra*, too, spring blooming *P. procumbens*, which combines better with native materials. Its leaves are a pleasing soft green without the high lustre of the Japanese relative. Also worth knowing are the *Epimediums*, members of the Barberry Family known for the excellence of their foliage and flowers and for the evenness of their growth. Borne on thin, wiry stems 8 or 9 inches tall, the firm, clean green leaves are extremely decorative. And, assuming purplish bronze tones in the fall and persisting late, their period of effectiveness is unusually long. The flowers are spring borne (late May-early June) and variously colored. Their shape suggests a bishop's cap, the common name by which the genus is often known. *Epimedium alpinum* (red), *E. macranthum* (violet, rose or white), and *E. pinnatum* (yellow) are the three species most frequently grown. Among the Plantain lilies (*Hostas*) will be found an additional source of shade cover plants. The plain leaved ones like *Hosta lancifolia*, "*coerulea*" or "*undulata erromena*" look best in informal settings, leaving the more exotic appearing forms for other uses. The Violets are another large group which will spread with abandon on shaded slopes. The Striped Violet, *Viola striata*, white flowered species with blue striping at the throat is especially vigorous as is the blue eyed white Confederate Violet, *Viola papilionacea priceana*.

For those difficult locations in which nothing else will grow Ground Ivy or Gill-Over-the-Ground, *Nepeta hederacea*, might be resorted to. Let the reader be forewarned, though, that the innocent appearance of its neat rounded leaves and light blue flowers give no indication whatsoever of its wandering habits!

Slopes in Sun

Sunny slopes on which grass burns and erosion thrives call for an entirely different group of plants. Taking a tip from nature we turn to the creeping Junipers, inhabitants of sandy wastes or rocky banks known for their tolerance and uniformity. One of the lowest growing is the Bar Harbor Juniper, *Juniperus horizontalis* 'Bar Harbor', ground hugging form from the Maine coast, procumbent almost to the extent that a lawn mower can be run over it without damage. It has gray green foliage which changes to slate color in winter. Taller growing, with grayish needles and long trailing stems is the Waukegan Juniper, *Juniperus horizontalis douglasi*, a species indigenous to the dunes of northern Illinois. Those objecting to winter color may find its deep purplish tones discordant. Where a height of 18 to 24 inches is permissible the flat topped Andorra Juniper, *Juniperus horizontalis plumosa*, may fill the bill. Although less spreading than the others it makes a feathery cover, gray green in summer, purplish in winter. About the same height is the spreading Japgarden Juniper, *Juniperus procumbens*, distinctive species whose glaucous horizontal branches bear sharp pointed bluish-green needles in threes. Not as rapid a grower as the others.

Two roses have also proved themselves well suited for planting on sunny slopes, the Memorial Rose, *Rosa wichuriana*, and the Max Graf Rose, *Rosa rugosa* 'Max Graf'. The former is a prostrate or trailing species from the Orient with small, glossy semi-evergreen leaves and two inch diameter single white blossoms in July. Its procumbent branches root at several places along their length establishing an effective erosion check. Max Graf is taller growing (to 18 inches or 2 ft.) and showier in blossom, having five petaled golden centered pink flowers three inches across. It blooms profusely in June.

The Sweet Fern, *Comptonia peregrina* (syn. *asplenifolia*), member of the Sweet Gale (*Myricaceae*) Family, while not recommended for general planting is a most satisfactory cover for steep dry banks fully exposed to the sun. Its dislike of lime in the soil limits its use locally, but in the dunelands of northern Indiana and Michigan it spreads by underground stems to form broad colonies 3 to 4 feet in height. One of its most appealing features is its aromatic fern-like foliage. Another stoloniferous shrub appropriate for planting either on dry banks in full sun or in partially shaded areas is the Dwarf Bushhoneysuckle, *Diervilla lonicera*. This coarse textured low shrub (to 3 ft.) has rather large dark leaves and small, yellow funnel shaped flowers in June.

Of the numerous herbaceous plants potentially usable for slope planting in sun the following offer a complete range of textures. The small leaved Golden Stonecrop, *Sedum acre*, is the finest, a creeping semi-succulent with yellow green foliage and bright yellow flowers in late spring and early summer. On rocky banks, outcrops or along steps it will drape itself in a most interesting way. Somewhat bolder in texture is the blue gray leaved Cushion Euphorbia, *Euphorbia epithymoides* (syn. *polycbroma*), whose foot high mounds become cushions of bright yellow in early spring. As in the case of the related Poinsettias, it is the bracts which contribute the floral interest. A brilliant crimson, purplish and gold autumnal foliage change concludes its cycle. In considering covers for rough banks that old standby the Tawny Daylily, *Hemerocallis fulva*, should not be bypassed. For, from early spring when its refreshing light green leaves first begin to show, through the mid-summer blooming season marked by legions of tawny colored lilies and on into autumn, its effectiveness never wanes. The Yucca or Adams Needle, *Yucca filamentosa*, at the opposite end of the list texture-wise, furnishes a year round boldness. Not only are its stiff, dark evergreen leaves dramatic in themselves, but the tall spikes of large white bell shaped flowers equally impressive. At the Arboretum this Yucca has been used effectively in replanting an abandoned gravel pit.

E L. Kammerer

Trustees: Sterling Morton, Chairman; Clayton J. Adams; Edward H. Baker, Jr.; Laurence A. Carton; Garfield King; Wirt Morton; Daniel Peterkin, Jr.; Suzette Morton Zurcher; Victor K. Zurcher

Staff: Clarence E. Godshalk, Director; E. Lowell Kammerer, Curator of Collections; Mrs. Raymond Watts, Naturalist; Anthony Tyznik, Asst. to the Director; Webster R. Crowley, Jr., Research Technician; Gordon Scott, Horticulturist; Walter E. Eichhorst, Asst. Curator of Collections; Roy M. Nordine, Propagator; Raymond Schulenberg, Asst. Propagator

Published monthly by The Morton Arboretum, Lisle, Ill. Subscription \$1.00 a year; single copies 10c; double copies 20c